

NextGen - Designing the Next Generation of Affordable Housing for Australia -

Project 1 - Research "Chapter studies"

Vern Ng - s3233317, Miranda Nesci - s3201572, Carson Tully - s3168050

3. On poetics, intangibility, hidden forces and space [ID]

Atmosphere, light, air, sound, weather, seasons, movement, habitation, daily rituals of usage and so on form intangible topographies within our home. These dynamic and temporal phenomena and forces which activate spaces and our experience of space. Yet the design of houses, or more importantly the lack of design, means that the power and poetics of these forces is largely ignored and lost, resulting in mundane architecture lacking perceptual stimulation, poetics and delight.

8. On varying density

'Sprawl is bad, density is good.' - A contested maxim of contemporary architecture. Densification brings with it many advantages including intensification, proximity, activity, reduced travel energy, shared services and maximisation of land value. But there are great challenges associated with density too - privacy, solar access, ventilation, congestion, building circulation and provision of personal and recreational space.

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Poetics, Intangibility, hidden forces and space
Why poetic is important?

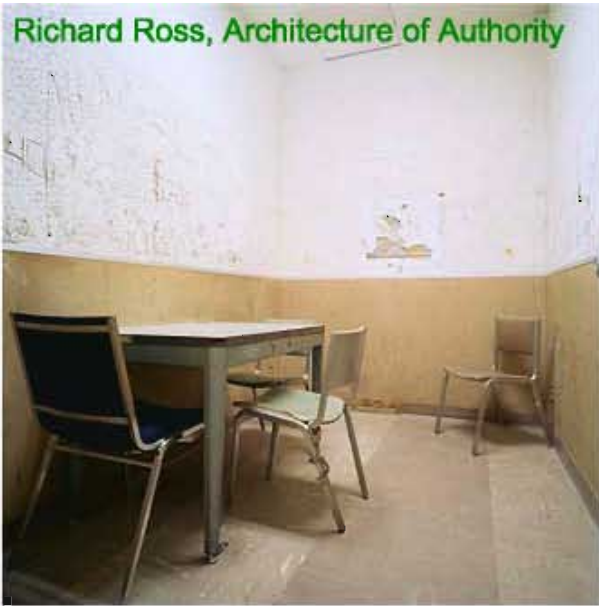


If we are living in affordable housing, is this how it should be?



What makes the space?

Richard Ross, Architecture of Authority



A prison cell has the poorest quality of living. Within this cell there is no access to the air outside, as the windows in most jail cells do not open, therefore leading to poor air and ventilation quality. These set of windows symbolise entrapment within the space, as the each individual windows make up what seems to look like bars. The space has bare minium of furniture; the colours are black and white, dirty and abused. This area is not inviting and could lead to depression and anxiety.



When you walk into a room. What makes you feel about the room? Is it just colours? Form? Lighting? Ventilation or smell? The history written on wall? The old furniture? The wind? The touch? The building material? Or the feelings hidden deep below your heart? Or maybe is everything.... that combine the 5 senses of human being.



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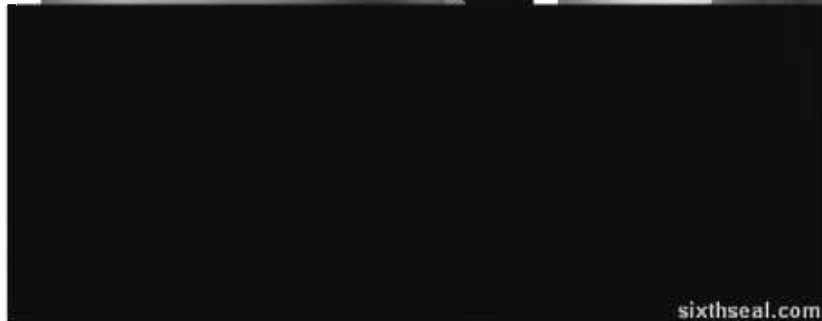
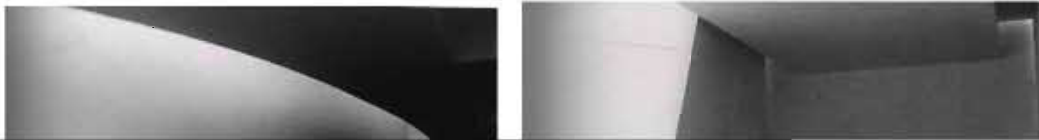


The Forces Light

"Light that is not seen with the eyes can be felt. Light's psychological effects can lead to extremes of feeling with direct repercussions." - Parallax. Steven Holl.



As this room has a small window allowing a little amount of light in the room, it gives the space a sense of uncomfortable and uninviting feel to it.



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The Reflection of Light



This light shine on orange wall, causing it to color bleed to the other wall.

Connection of Light and Human Being



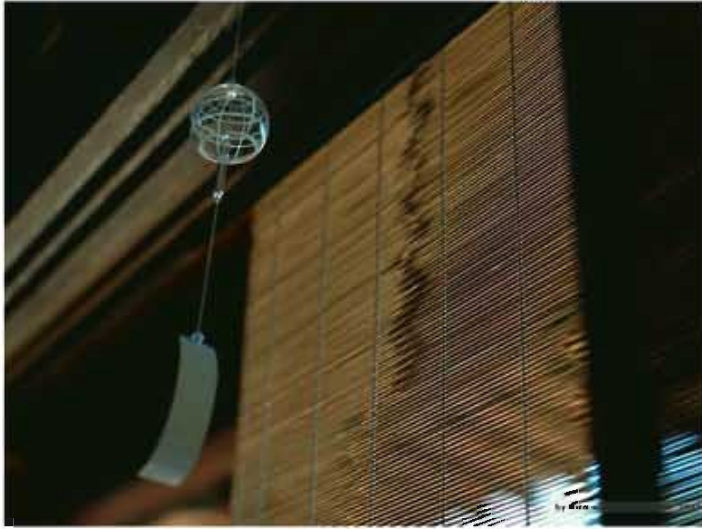
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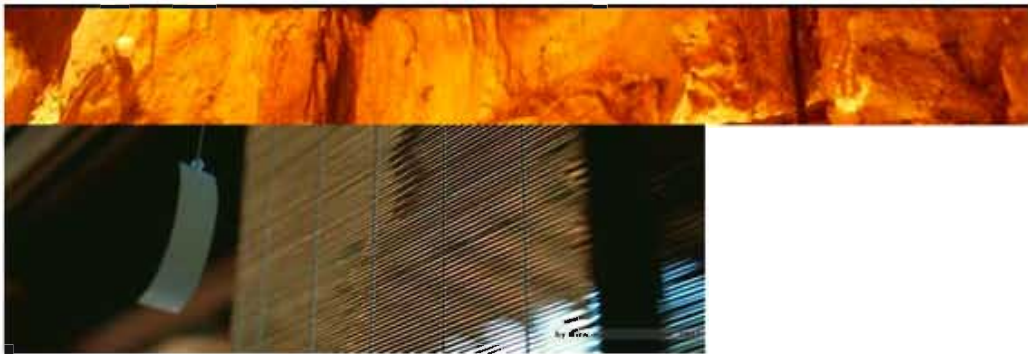
The Forces Sound

The first question is,
how could sound form part of the poetic architecture?



FENG LING - It contains of a bell and a paper beneath it. When the wind blows, The force of the wind will push the paper and ring the bell. The soft ringing tone of the bell is used to calm the whole environment.

Capricorn Caves - Chapel



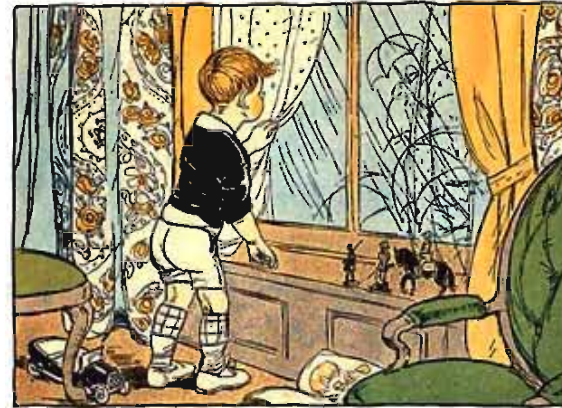
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Capricorn Caves - Chapel



Water

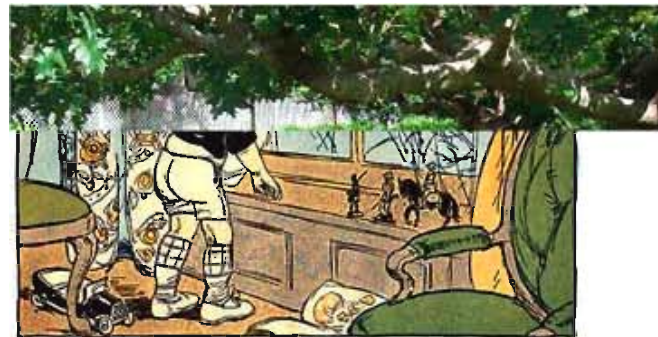
The best climate for people to enjoy sleep is perhaps when they have nothing to do due to some natural limitations such as rains and storms. In these cases, people would usually find themselves in their homes left with little things to do. Among them include that of being groggy and ending up simply want to get some sleep



<http://sleepzine.com/sleep-cures/how-to-sleep-better/rainy-days-bring-sleepy-spells/>

Shading and Shadow

I like to read under a tree, where the shadow of the tree is dancing and the sound of leaves are singing.

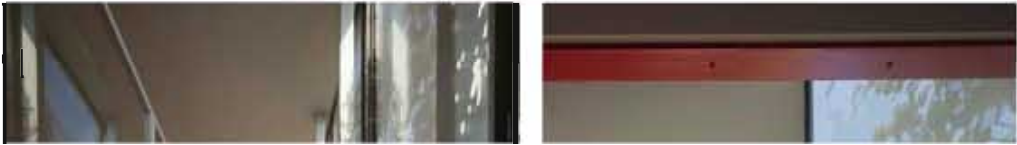


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COLOURS

Psychological Properties Of Colours

There are four psychological primary colours - red, blue, yellow and green. They relate respectively to the body, the mind, the emotions and the essential balance between these three.

RED. Physical

Positive: Physical courage, strength, warmth, energy, basic survival, 'fight or flight', stimulation, masculinity, excitement.

Negative: Defiance, aggression, visual impact, strain.

BLUE. Intellectual

Positive: Intelligence, communication, trust, efficiency, serenity, duty, logic, coolness, reflection, calm.

Negative: Coldness, aloofness, lack of emotion, unfriendliness.

YELLOW. Emotional

Positive: Optimism, confidence, self-esteem, extraversion, emotional strength, friendliness, creativity.

Negative: Irrationality, fear, emotional fragility, depression, anxiety, suicide.

GREEN. Balance

Positive: Harmony, balance, refreshment, universal love, rest, restoration, reassurance, environmental awareness, equilibrium, peace.

Negative: Boredom, stagnation, blandness, enervation.

VIOLET. Spiritual

Positive: Spiritual awareness, containment, vision, luxury, authenticity, truth, quality.

Negative: Introverson, decadence, suppression, inferiority.

ORANGE.

Positive: Physical comfort, food, warmth, security, sensuality, passion, abundance, fun.

Negative: Deprivation, frustration, frivolity, immaturity.

PINK.

Positive: Physical tranquillity, nurture, warmth, femininity, love, sexuality, survival of the species.

Negative: Inhibition, emotional claustrophobia, emasculation, physical weakness.

GREY.

Positive: Psychological neutrality.

Negative: Lack of confidence, dampness, depression, hibernation, lack of energy.

BLACK.

Positive: Sophistication, glamour, security, emotional safety, efficiency, substance.

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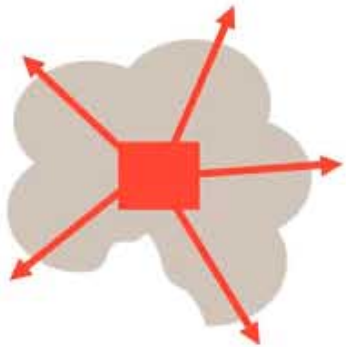
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VARYING DENSITY

WHAT IS HAPPENING WITH MELBOURNE CITY STRUCTURE?

Single Centre vs Multi-Centre City Structure



One Major Centre
'Monocentric'

We need a 'multi-centre' city structure that builds on the principles and directions of *Melbourne 2030* but acknowledges the need for a better distribution of jobs and activity, so that Melburnians can work closer to where they live.

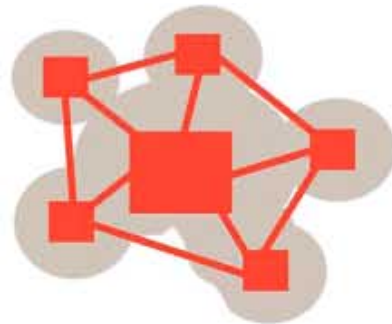
Moving from one CBD to a number of CBD-like centres will reduce congestion and enable people to spend less time commuting to and from work and more time with their families.



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Multiple Major Centres
'Polycentric'

– **targeted redevelopment** to increase levels of housing and employment in established areas close to where people reside, particularly where the tram network can support this level of change; and

– **new sustainable communities** that provide jobs and housing in growth areas in the north and west, recognising the diminishing options in the south east.



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WHICH PART OF MELBOURNE WILL BE PROMOTED?

What Victoria government has proposed: -

- Multi center city

The following centres will be promoted as Central Activities Districts in the hierarchy of centres in Melbourne 2030. Government will focus planning and investment in six Central Activities Districts:

– Box Hill

– **Broadmeadows**

– Dandenong

– Footscray

– Frankston

– Ringwood

HOW COMPACT SHOULD THE CITY BE?

- encourage average overall residential densities in the growth areas to be a minimum 15 dwellings per net developable hectare. This target reflects ongoing development trends in growth areas which has seen residential densities increase to around 12 dwellings per hectare today with many new estates already pushing towards the preferred **minimum of 15**

HOW BIG IS ONE HECTARE?

10,000 SQUARE METRES !! OR



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TRANSPORT

HOW COULD WE STORE OUR CARS IN A LIMITED SPACE?



VERTICAL LIFTING PARKING SYSTEM

WHAT CAN WE SEE FROM HERE? WHY HONG KONG, SINGAPORE AND TOKYO IS USING LESS PETROL THAN MELBOURNE ?

Relationship between Transport and Land Use

A commonly used study of 32 cities by Newman & Kenworthy In 1989 concluded that there was a strong link between urban development densities and petroleum consumption.



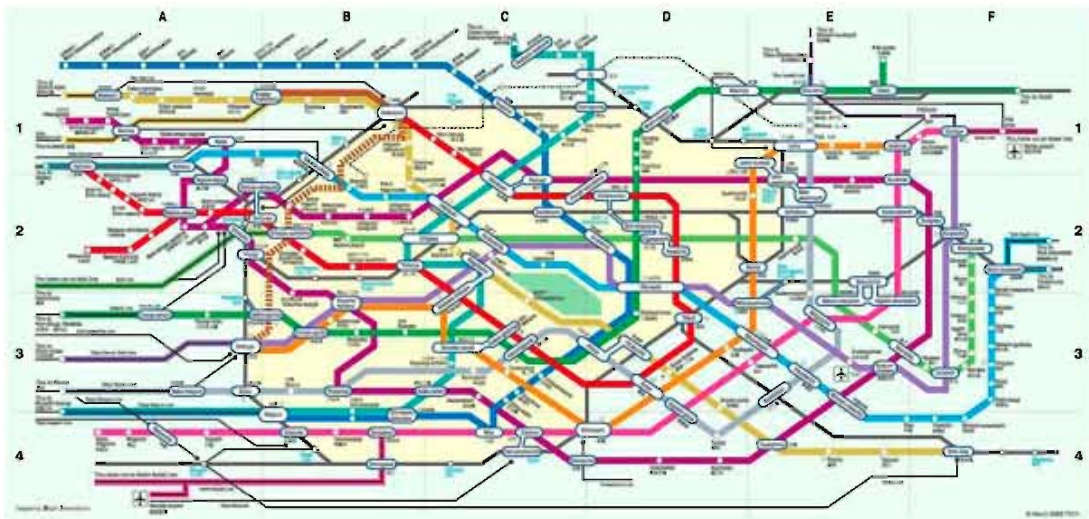
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BETTER PUBLIC TRANSPORT? OR BETTER FACILITIES FOR PUBLIC TRANSPORT?



COMPARE ON TOKYO RAIL & MELBOURNE RAIL

Tokyo has complicated system that connect passenger to the required destination.



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UNDERSTANDING HONG KONG

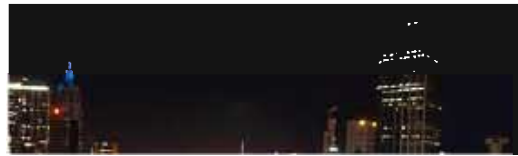


Hong Kong is one of the world's most densely populated areas in the world. They rather increase the amount of people living within a space then have a big backyard. This however, doesn't eliminate the amount of parks and woodlands within a city. The trees help purify the air (o₂ +co₂) for the amount of people which are living within the state is higher. Hong Kong's total space area: 1,104km² with 7,055,071 people living compared to Melbourne's total space area of: 8,806km² with 3.9 million people living.



This photograph brings us to reality of how dense Hong Kong really is. In less amount of land than Australia has Hong Kong has managed to accommodate for around 2 times as more people as

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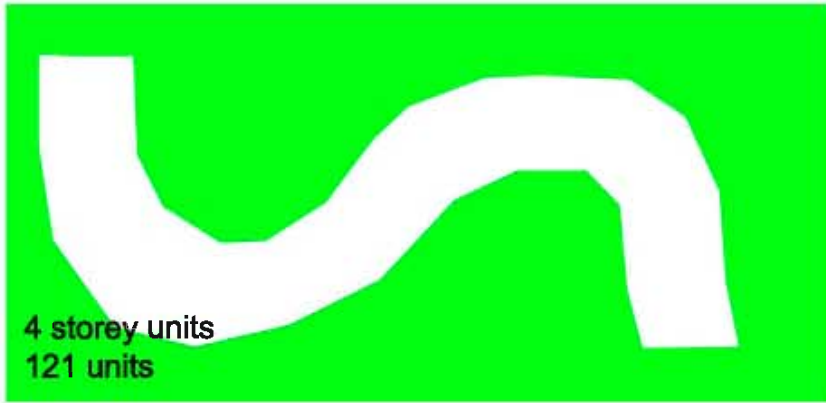


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TYPE 1 - LOW RISE TYPE WITH SEPERATE GARDENS

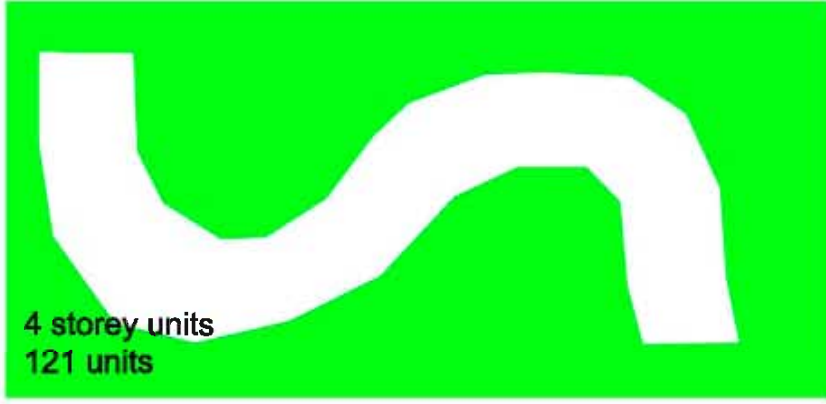


TYPE 2 - MIDDLE-RISE S CURVE TYPE



TYPE 3 - HIGH-RISE ZIGZAG TYPE

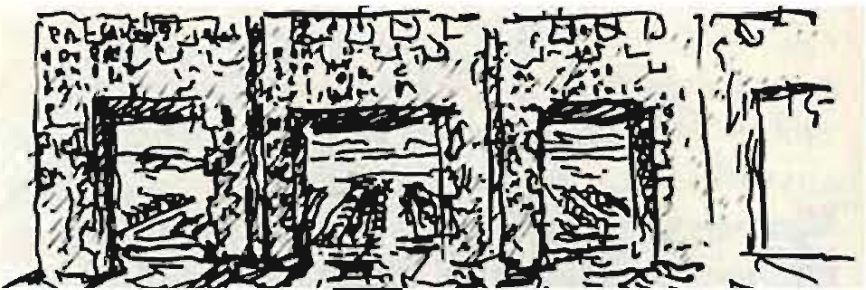
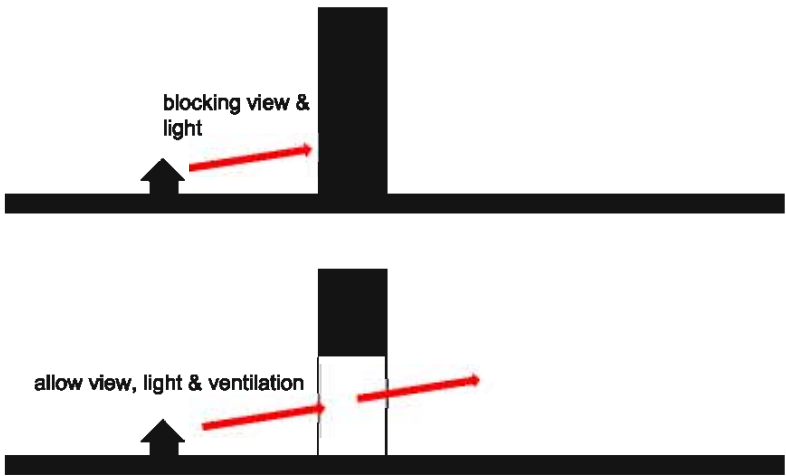
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HIGH RISE & LOW RISE COMPOSITION
CREATING VIEW & PRIVACY FOR ALL TENANT

PRIVACY ,VIEWS & AESTHATIC

HABITAT 67



IDEA OF SHARING SPACE OR FLEXIBLE COMMUNITY SPACE

Thailand Train Market - MaeKlong



busy market on railway track



train is coming, everyone moves out of the way quickly.



CONTINUE
ON NEXT PAGE



train is passing by slowly



After that, reset the market space.



open up for business again.

14. On Urban agriculture and planting [ID]

The recent re-examination of world energy and food supplies has caused a resurgence in the popularity of localized agriculture. Since 2007 over half of humanity lives in urban environments, so unlike the food movements of the 70s, the new focus on agriculture, horticulture and gardening is primarily an urban phenomenon. It is also linked to movements of food security and a renewed excitement for health benefits of being close to one's food source.

Urban agriculture and planting

Comparison on Agriculture and planting in different living locations



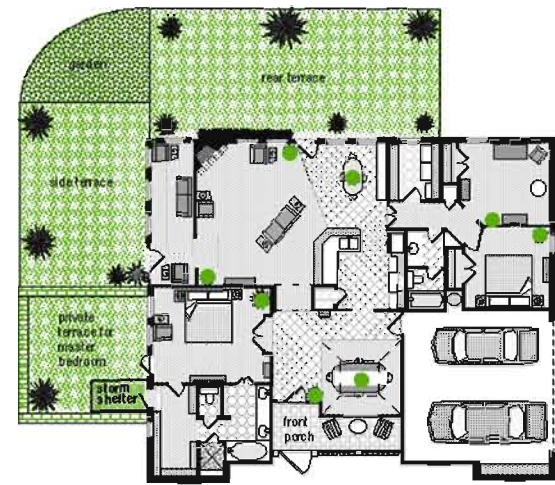
Household with backyard



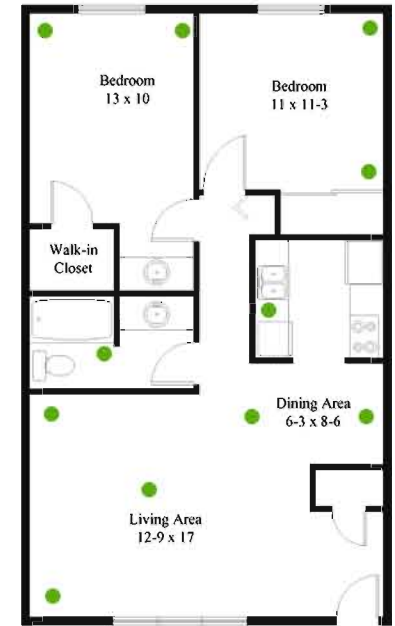
Gardening and farming



Apartment living spaces



Comparing plant growth between a household & apartment
The green represents flowers / grass / yard etc growth in the two houses.



Farm City - The education of an Urban Farmer
Novella Carpenter

(Published by The penguin Press New York 2009)

"Your grandmother, like mine, grew her own tomatoes, killed her own chickens, and felt a true connection to her food. Just because we live in the city, we don't have to give that up."

... I knocked on doors to get other people involved with the work in the garden ... I got shock responses: "I don't have time" or "I buy my food at the grocery store."...

Although my holding was small and temporary - I had come to realize that urban farming wasn't about one farm, just as a beehive isn't about an individual bee.... Urban farms have to be added together in order to make a farm.





AeroGarden Herb and Vegetable Indoor Garden
The AeroGarden Indoor Garden is a must-have cooking accessory for any gourmet kitchen. It grows flavorful produce anywhere — no spade work, tools, or dirt required.

No gardening experience needed. NASA-tested aeroponic technology grows plants in water, nutrients and air—so simply and easily that anyone can succeed. Plug n' Grow Biodome Seed System™ pods are enclosed in mini greenhouses for ultra fast germination. Grow and harvest year round regardless of season or weather. Fully automated appliance with built-in grow lights removes all the guesswork. Micro-Processor automatically adjusts nutrient delivery, light cycles and water flow for specific plant types. Guaranteed harvest in 28 days. Includes one free Gourmet Herb Seed Kit.

Measures 15½ x 17 x 10½

http://www.genevastyle.com/products/product.aspx?dept=34&sku=aero_garden_planter



http://student.designawards.com.au/application_detail.jsp?status=2&applicationID=7401

Urb Garden (designed by Xavier Calluud) allows people who do not have space for traditional horizontal gardens to indulge in gardening. Vertical food gardens encourage urban dwellers to grow their own food. It comes with a self-contained drip watering system, keeping the plants hydrated. It was also designed for organic recycling to act as plant fertilization.

Louis H. Joutel of this city has discovered that a beehive can be successfully operated in New York City, and has turned his discovery to practical account.

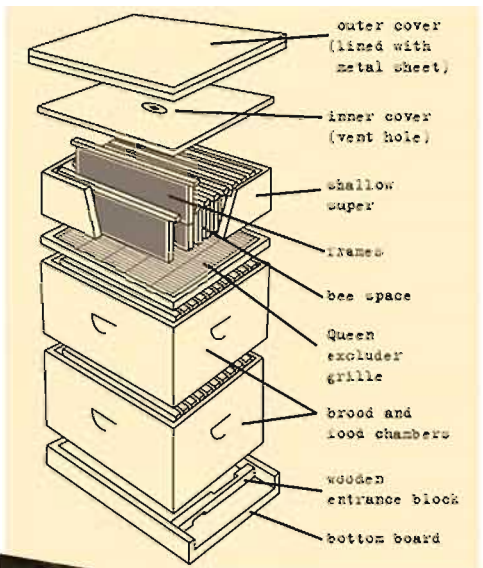
Mr. Joutel is an ardent bug collector and a member of the New York Entomological Society. He is often seen in the wilds of the Bronx, armed with a big tin collecting-can and a formidable-looking knife. The latter is used solely, however, for the purpose of uprooting the elusive beetle, or making captive the caterpillar, together with its leafy perch.

It was Mr. Joutel's love for insects which led him to experiment in keeping an apiary on the roof of his home at 161 East One Hundred and Seventeenth Street. He procured a hive, stocked it, and awaited results. The bees sallied forth, but not to starvation. In a short time they had combs in process of construction, and were filling them with honey.

As to where they procured this material, Mr. Joutel's explanation is of considerable interest. Soon after he started his hive, he said, he was in Mount Morris Park, some distance from his house. Here he found some of his bees hard at work on the few flowers in sight. He made a trip to Morningside Park on the west side of the city, and observed a few of the honey-makers there. He was sure they were from his hive, as they were of a peculiar variety, and easily recognized. Mr. Joutel believes that they also made trips to Central Park, as well as patronizing all the fire-escape conservatories in his neighborhood. At any rate they collected a large amount of honey, and some of the combs are now on exhibition in the American Museum of Natural History, in Manhattan Square.

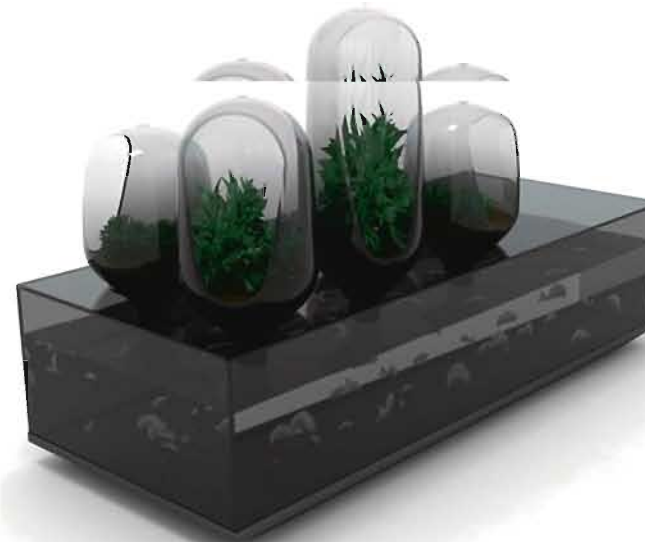
The New York Times

Published: June 25, 1899
Copyright © The New York Times

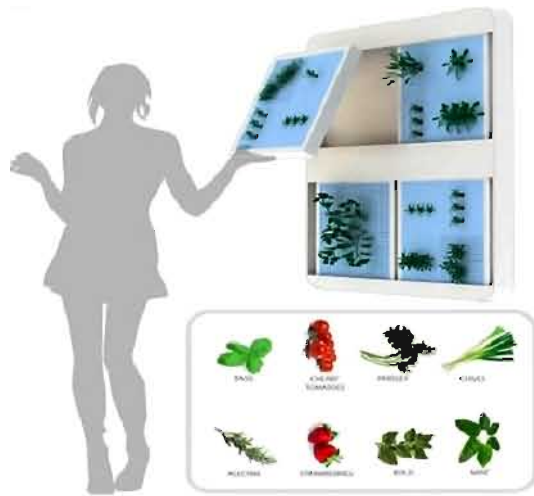


LOCAL RIVER

Designers
Mathieu Lehanneur &
Anthony van den Bossche



The plants extract nutrients from the nitrate-rich dejecta of the fish. In doing so they act as a natural filter that purifies the water and maintains a vital balance for the eco-system in which the fish live. The same technique is used on large-scale pioneer aquaponics/fish-farms, which raise tilapia (a food fish from the Far East) and lettuce planted in trays floating on the surface of ponds.



Ecohabitare

If you don't have the farming land for a garden, surely you have enough space to hang a "picture?" Ecohabitare is a vertical garden designed by Daniele Adamo and Ravel Casela. Made from flat plates manufactured from recycled packages, this portable vertical garden takes 20 minutes a day to harvest and irrigate. The fertilized soil only needs changed once a year when you add new seeds. It requires about 9.8 feet or 3 meters of wall space and is best suitable for growing chives, parsley, tomato, basil, mint, bold, strawberry and rosemary.



Perkins + Will's Antilla "Green" Tower in Mumbai

Obviously the main feature is that the plant walls will increase green space and combat urban heat island effect. However, infrastructure and materials look quite excessive and not as sustainable as the desired outcome. Possibly the use for one floor to be a share garden for the apartment users could work well, as it has the potential to offer a place of sanctuary and relation that can be enjoyed by many of the users along with gardening and produce growth.

<http://www.inhabitat.com/2007/10/25/sites-residence-antilla-green-tower-in-mumbai/>

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The Omega Garden Carousel

Each carousel carries six, 8ft. long Omega Gardens™; equaling as much as 1500 sq. ft. of greenhouse yet only using 150 sq. ft. of floor space, including access!

This is a fully automated system. Each rotating garden is in turn rotated on the carousel down to the water/feeding tray at floor level, minimizing plumbing, while providing easy access.

This unit can be operated in an insulated structure in any climate, with unprecedented efficiency. Climate, with unprecedented efficiency.



Verticle growth on buildings. Although it is not a new concept, it offers the oppurtunity to give



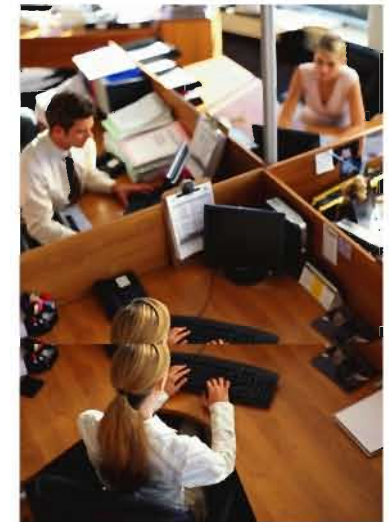
Kitchen garden



Designer La Chanh Nguyen came up with both of these green living concepts. The Kitchen Garden basically grows over the pot holding kitchen utensil and provides a vertical garden. The chef can cut some fresh aromatic herbs as needed. How about a moss bathmat? Moss Carpet utilizes the humidity of the bathroom as well as water dripping off a person to stay watered. It would also provide a very different feeling under your feet than most people experience when stepping out of the shower or tub.

Having plants in the office is not a new idea, but designers Jinsun and Seonkeum Park have a couple of plant growing concepts that you have doubtfully seen in the office yet. For those of you trapped in the dreaded cubicle, perhaps office life would seem a bit less bleak with a Breathing Partition? They claim it will bring an ever-lasting oasis to an otherwise dull and dreary office environment. Not for you? Then how about a grass foot rest to allow a feeling of nature under your bare feet?

Indoor plants can make a great deal of difference to the environment in your home. They add color and brightness, in addition to moisture, and also convert carbon dioxide into oxygen.



Due to the hours of the modern day worker, many days in the sun are lost and therefore many live a morning and night life. By attempting to be the outdoors in, it gives many of brightness and a sense of daytime sunshine that is needed.



Designer Luis Luna created this green computer concept design called "O." The project was inspired by the oxygen and the photosynthesis cycle, trying to reduce the amount of CO₂ that computers generate. This CPU is both decorative and meant to encourage a green thinking lifestyle for computer





Flowing sand represents water, Rock represents mountain

"Man must live with surrounding nature from the moment of his birth. And in his communion with nature, develops it noble sentiment & a mind at peace."

"The spectacular sight of the form & shape of nature provide man with the comfortable sense of poetry."



Water is very important to a Japanese garden.



Trees Arrangement from low to high, no trees can be planted in a same line.

There are many factors to consider for a garden and many factors can change the effects, feel and visual please, which on many different occasions can change one's mood and senses. All factors should be considered for every garden along with the floor plan of the site.